

I CLAIM:

1. A structural foundation for use in expansive or other soil, comprising:
a plurality of structural support members extending from the soil a void
distance;
a slab form for receiving hardenable material positioned to extend horizontally
5 and supported by the support members;
a structural slab of the hardenable material cast into the slab form; and
a wall formed of hardenable material extending substantially vertically from an
upper surface of the slab, whereby the wall is supported by the slab.
2. The foundation of claim 1, further including a connector extending into
the slab and into the wall to mechanically join the slab and wall.
3. The foundation of claim 1, further including an end beam formed
monolithically with the slab, the end beam being positioned on a surface of the slab
opposite the wall and abutting at least some of the structural support members.
4. The foundation of claim 3, wherein the end beam has a width of about
a width of the wall.
5. The foundation of claim 1, further including an elongate support beam
positioned between and in abutting contact with a bottom surface of the slab form and
at least a portion of the structural support members.
6. The foundation of claim 1, further including a dam assembly
comprising a plurality of barrier elements positioned adjacent the periphery of the slab
in contact with the soil and the slab.
7. The foundation of claim 6, further including a window well abutting
the slab and the wall, wherein one of the barrier elements is positioned in the window
well and is anchored to the soil with removable anchors.

8. The foundation of claim 1, further including a sump pit connected to a discharge of a drainage element and located in the soil outside of an envelope defined by the slab.

9. A foundation for use in soil, comprising:

a slab and wall assembly including a horizontally extending slab of concrete and a concrete wall extending vertically from the slab and attached to the slab;

5 a plurality of support members embedded in the soil and contacting the slab and wall assembly to vertically support the slab and wall assembly, wherein a void space is defined between the slab and wall assembly and the soil; and

a dam including a plurality of planar members positioned in abutting contact with adjacent ones of the planar members, with the soil, and with a lower portion of the slab and wall assembly, wherein the planar members extend about the periphery of the slab and wall assembly.

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10. The foundation of claim 9, wherein the wall is positioned upon an upper surface of the slab to be supported by the slab.

11. The foundation of claim 10, wherein the slab includes an end beam extending from a lower surface of the slab opposite the position of the wall and extending about the periphery of the slab in contact with a subset of the support members.

12. The foundation of claim 9, further including a sump pit positioned adjacent to an exterior surface of the dam.

13. The foundation of claim 9, further including a window well extending into the soil adjacent the slab and wall assembly, wherein the window well has a depth and width to expose at least one of the planar members and wherein the at least one is anchored to the soil with removable anchors.

14. A foundation for use in soil, comprising:

a slab and wall assembly including a horizontally extending slab of concrete and a concrete wall extending vertically from the slab and attached to the slab;

5 a plurality of support members embedded in the soil and contacting the slab and wall assembly to vertically support the slab and wall assembly, wherein a void space is defined between the slab and wall assembly and the soil; and

a sump pit positioned adjacent the slab and wall assembly exterior to the periphery of the wall, the sump pit being connected to drainage pipes to collect water discharged from the pipes.

15. The foundation of claim 14, further including a window well with a wall defining a hole in the soil adjacent slab and wall assembly over the sump pit.

16. The foundation of claim 14, further including a dam extending about a periphery of the slab and wall assembly and positioned in abutting contact with the soil and the slab and wall assembly.

17. The foundation of claim 14, wherein the wall is positioned on top of the slab such that the slab is between the wall and the support members.

18. The foundation of claim 17, further including an elongate, concrete support beam positioned on a number of the support members to abut a lower surface of the slab.

19. The foundation of claim 18, the slab and wall assembly further including a slab form supporting the lower surface, the lower surface comprising a series of ridges and the slab form abutting the support beam.

20. The foundation of claim 19, wherein the slab and wall assembly further includes a concrete end support beam positioned between the slab and a number of the support members to abut a portion of the lower surface of the slab opposite the wall.